

this genus have large marginal denticles which differentiate this species from the rest. However, recent studies on the species from Malaysian rice fields (Idris 1983) and also the present study clearly show that this species also has marginal denticles, which were not reported earlier.

Genus *Indialona* Petkovski, 1966

*Indialona globulosa* (Daday, 1898) (Figs. 6-10)

**Morphological features:** Female size 0.35-0.42 mm. Body oval, highly arched dorsally, minimum height before middle (Fig. 6). Posteroventral corner of valves distinct without denticles (Fig. 10). Valves with distinct longitudinal striations. Ventral margin convex with setae turned inward. Ocellus smaller than eye, situated nearer to the eye than to apex of rostrum. Rostrum blunt, antennules reaching about three fourths the length of rostrum (Fig. 7). Plate of labrum convex anteriorly and slightly serrated on antero-ventral margin (Fig. 8) Post-abdomen broadest near anus, with distinct preanal corner. Anal groove concave, post-anal margin slightly tapering distally with rounded

dorsal-distal corner. Dorsal margin with 11-13 short denticles. About 13 groups of long and distinct lateral spinules present laterally, the distal most ones being the largest and slightly projecting beyond the dorsal margin (Fig. 9). Claw long and setulated on the concave surface, with a basal spine.

**Distribution:** Not common. Collected in very small numbers in the marshy habitats of Keoladeo National Park. Elsewhere — Philippines (Mamaril and Fernando 1978) Sri Lanka (Rajapaksa and Fernando 1983) and Malaysia (Idris 1983).

This is the first record of the species in Rajasthan. It was reported earlier from West Bengal (Sharma 1978). The present material agrees well with the description of the species made by Smirnov (1974), Idris (1983) and Michael and Sharma (1988).

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#### REFERENCES

- GURNEY, R. (1907): Further notes on Indian freshwater Entomostraca. *Rec. Indian mus.* 1: 21-33.
- HENRY, M. (1922): A monograph of the freshwater Entomostraca of New South Wales. *Proc. Linn. Soc. New South Wales* 47: 26-52.
- IDRIS, B.A.G. (1983): Freshwater Zooplankton of Malaysia. Penerbit University Pertanian, Malaysia.
- MAMARIL, A.C. & FERNANDO, C. H. (1978): Freshwater zooplankton of the Philippines (Rotifera, Cladocera and Copepoda). *Bull. Nat. Sci. Univ. Philippines* 30: 107-221.
- MICHAEL, R.G. & SHARMA, B.K. (1988): Fauna of India, Indian Cladocera (Crustacea: Branchiopoda: Cladocera). Ed. Director, Zoological Survey of India, Calcutta.
- RAJAPAKSA, R. & FERNANDO, C.H. (1982): The Cladocera of Sri Lanka, with remarks on some species. *Hydrobiol.* 94: 49-69.
- SHARMA, B.K. (1978): A note on Freshwater cladocerans from West Bengal. *Bangladesh J. Zool.* 6: 149 - 151.
- SIEH-CHIH, C. & NAN-SHAN, DU. (1979): Fauna Sinica, Crustacea, Freshwater Cladocera. Science Press, Academia Sinica, Peking, China.
- SMIRNOV, N.N. (1974): The world Chydorid fauna. *USSR Acad. Sci. Zool. Institute Leningrad.*
- VENKATARAMAN, K. (1983): Taxonomy and Ecology of Cladocera of Southern Tamil Nadu. Ph.D. thesis, Madurai Kamaraj University, Madurai.
- VENKATARAMAN, K. (1992): Cladocera of Keoladeo National Park, Bharatpur and its environs. *J. Bombay nat. Hist. Soc.* 89(1)

### 32. RECORD OF THE CONE SHELL *CONUS CUMINGII* (REEVE, 1848) FROM BOMBAY SEAS

Literature on the shells of India is scant and very old. Many of the species mentioned have become rare due to environmental changes and pollution. Crichton (1941), Gravely (1942) and Hornell (1949) described the molluscan fauna of

Madras and Indian coast. Literature on shells of Bombay by Subrahmanyam *et al.* (1952) state that there are in all 187 species of Gastropods. But many of these have become very rare. For example, *Lambis lambis* (Linn.) and *Xancus pyrum* (Linn.) have

disappeared, while *Cypraea arabica* (Schilder) has become very rare on Bombay coast. In some of these publications the occurrence of *C. cumingii* has been mentioned.

I came across an unusual cone species which I could not identify, on 21 May 1990 on a south Bombay beach. Subsequently, I made several visits to the same place to make a detailed study of this cone shell. In 1990, I could see seven live specimens of this species, of which two are in my personal collection. This species was later identified as *Conus cumingii* (Reeve, 1848) with the help of Dr. M.G. Harasewych, Divn. of Mollusks, Smithsonian Institution, U.S.A.

The shell is moderately large (average 5.2 cm) with tall spires; outer lip thickened. Chestnut brown in ground colour with a prominent white spotted zone

midway on the body whorl. Upper margin of body whorl bears alternately arranged white and brown spots. Brown spiral lines are present on the entire surface, but darker near the upper ridge and at the mid-zone of body whorl.

**Distribution:** According to Dr. Harasewych, this species has a distribution from the Bay of Bengal to the western rim of Western Pacific, though Van Nostrand (1967) gives its locality as Philippines. It is possible that this form may be a subspecies, but this requires a detailed study.

I thank Dr. M. G Harasewych, Associate Curator, Division of Mollusks, Smithsonian Institution, U.S.A. for help in identifying the shell.

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#### REFERENCES

- CRICHTON, M.D. (1941): Marine shells of Madras. *J. Bombay nat. Hist. Soc.* 42 (2): 323-341.
- GRAVELY, F. H. (1942): Shells and other animal remains found on the Madras beach, II, snails etc. (Mollusca: Gastropoda). *Bull. Madras Govt. Museum*, New series, nat. Hist. Sec., Vol. v, No. 2.
- HORNELL, J. (1949): The study of Indian Molluscs. *J. Bombay nat. Hist. Soc.*, 48 (2-4).
- SUBRAHMANYAM, T.V., KARANDIKAR, KR. & MURTI, N.N. (1952): Marine Gastropods of Bombay, Part II. *Jour. of Univ. of Bombay*, Part 3, Vol XXI, New series, 26-73.
- VAN NOSTRANDS (1967) Standard catalog of shells. D. Van Nostrand Co. Inc. II ed.

### 33. CORRECTIONS AND ADDITIONS TO THE FLORA OF GURDASPUR DISTRICT, PUNJAB

In an earlier communication, Bir and Singh (1989) had reported new records for Punjab State. Sixty nine species of flowering plants collected from Gurdaspur district were added to the list of plants from Punjab. Subsequently, during compilation of the flora of Gurdaspur district and Punjab state, re-examination of the materials revealed some startling inaccuracies. Unfortunately, this has been the result of mixing up of specimens and field numbers and wrong identifications. Hence the present communication wherein we report corrections to 'Additions' for Punjab state and make a few other nomenclatural corrections. Specific identifications and nomenclature of all the 69 species were subsequently checked by comparing with authentic vouchers at BSD.

Correct identifications of 29 species as erroneously reported earlier are given below. For

enumeration of the species, original serial numbers are given for quick reference. PUN accession numbers are mentioned for each so as to pin-point the specimens. Other details for locality, collector, etc. remain the same. Correct family reference is made wherever necessary.

2. *Capsella bursa-pastoris* (Linn.) Medik., PUN 35771, 35772.

*Lepidium perfoliatum* sensu Bir & Singh (1989): non Linn. 1753.

5. *Geranium mascatense* Boiss. var. *himalaicum* Babu (= *G. ocellatum* Camb.) PUN 33348, 33349.

*Geranium lucidum* sensu Bir & Singh (1989): non Linn. 1753.

\*7. *Ranunculus laetus* Wall. ex D. Don, PUN 33630, 33631, Fam: Ranunculaceae.

*Geranium wallichianum* sensu Bir & Singh (1989): non Don 1825.